

ACTIVE PULSE BLOOD CONSTITUENT MONITORING

Abstract of the Disclosure

A blood glucose monitoring system is disclosed which provides for inducing an active pulse in the blood volume of a patient. The induction of an active pulse results in a cyclic, and periodic change in the flow of blood through a fleshy medium under test. By actively inducing a change of the blood volume, modulation of the volume of blood can be obtained to provide a greater signal to noise ratio. This allows for the detection of constituents in blood at concentration levels below those previously detectable in a non-invasive system. Radiation which passes through the fleshy medium is detected by a detector which generates a signal indicative of the intensity of the detected radiation. Signal processing is performed on the electrical signal to isolate those optical characteristics of the electrical signal due to the optical characteristics of the blood.

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